CLAIMS

1 (amended): A reflecting micro-optics solar concentrator system which reflects the sun onto a solar energy receiver, comprising:

a) a solar concentrator with anisotropic rotatable specular reflection miniature mirrors embedded in balls disposed in a surrounding medium of an optically transmissive lubricating fluid disposed behind an optically transmissive surface;

b) electric coupling means for aligning the anisotropic rotatable miniature specular reflection mirrors;

c) electrical means for tracking the sun with said mirrors; ~~and~~

d) means for focusing said reflecting system unto said solar energy receiver; and

e) means for supporting said solar energy receiver above said concentrator in a pyramidal configuration.

2. (cancelled):

3. (cancelled):

4 (amended): The apparatus of claim 1, wherein said reflecting solar micro-optics concentrator is adjacent to and supported by the ground.

5 (amended): The apparatus of claim 1, wherein the said reflecting micro-optics solar concentrator is in modular form.

6 (cancelled):

7 (amended): The apparatus of claim 1, wherein the aligning means is at least one external electric field wand.

8(amended): The apparatus of claim 1, wherein the aligning means is at least one external magnetic field wand.

9 (amended): The apparatus of claim 1, wherein said optically transmissive surface is covered by a plurality of removable plastic films.

10 (original): The apparatus of claim 1, wherein a plurality of micro-optics solar concentrators are disposed in different angular orientations.

11 (amended): The apparatus of claim 1, wherein a plurality of micro-optics solar concentrators and solar energy receivers are each disposed in different angular orientations comprising at least one pair of concentrators and receivers in substantially parallel alignment.

12 (amended): The apparatus of claim 1, wherein a plurality of sensors are dispersed on the surface of said solar energy receiver to sense solar beam mis-stearing.

13 (amended): The apparatus of claim 1, wherein a plurality of sensors dispersed on the surface of said solar energy receiver to sense solar beam mis-stearing are connected to a circuit for fail-safe defocusing of the solar beam.

14 (amended): The apparatus of claim 1, wherein at least one pair of solar concentrators and solar receivers are placed under a transparent cover.

15 (amended): A method of concentrating and receiving energy from the sun provided by a solar energy receiver and solar concentrator with miniature mirror reflectors embedded in balls comprising the steps of:

a) aligning said ~~mirrors~~ miniature mirror reflectors;

b) tracking the sun with said mirrors;

c) focusing the miniature mirrors unto said solar energy receiver; and

d) supporting said solar energy receiver above said solar concentrator in a pyramidal configuration.

16 . (cancelled):

17. (cancelled):

18 (amended): The method of claim 15 further comprising the step of placing the solar micro-optics concentrator on the ground.

19 (amended): The method of claim 15 further comprising the step of constructing the solar micro-optics concentrator in modular form.

20 (cancelled)

21 (amended): The method of claim 15 further comprising the step of aligning said miniature mirror reflectors by means of an external electric field wand.

22 (amended): The method of claim 15 further comprising the step of aligning said miniature mirror reflectors by means of an external magnetic field wand.

23 (amended): The method of claim 15 further comprising the step of fiducializing the orientation of the miniature mirror reflectors in situ.

24 (amended): A method for improving the alignment operability of rotatable miniature reflectors of a micro-optics solar concentrator system for concentrating reflected sunlight disposed in a surrounding medium of an optically transmissive lubricating fluid retained between upper and lower sheets, the lubricating fluid disposed behind an optically transmissive surface, the method comprising the steps of:

a) heating the solar concentrator of the micro-optics solar concentrator system for no more than four hours; and

b) agitating the rotatable miniature reflectors relative to the surrounding media during heating.

25 (original): The method of claim 24 wherein the agitation is provided by vibration of the said micro-optics system.

26 (original): The method of claim 24 wherein the agitation is provided by rotation of the said rotatable miniature reflectors.

27 (amended): The method of claim 24, wherein the ~~display~~ solar concentrator is heated in the range of 35 to 90 degrees Centigrade.

28 (original): The method according to claim 24, wherein the rotatable miniature reflectors are balls.

29 (original): The method according to claim 24, wherein the rotatable miniature reflectors are generally cylindrical.

30 (amended): The method according to claim 24, wherein the rotatable miniature reflectors are electromagnetically anisotropic and wherein the agitating step includes alternating an ~~electriomagnetic~~ electromagnetic field and thereby rotating the anisotropic reflectors relative to the surrounding media.

31 (original): The method according to claim 24, wherein an alternating electric field is driven at one to three times the alignment field for the concentrator.

32 (original): The method according to claim 24, wherein an alternating magnetic field is driven at one to three times the alignment field for the concentrator..

33 (amended): The method according to claim 24, wherein a manufacturing step includes drawing a vacuum between the ~~said~~ sheets so as to degas the medium therein.

34 (new): The method according to claim 15, wherein the fiducial orientation of the mirrored balls is carried out in situ by means of a fiducializing sensor.